

ABSTRACT OF THE DISCLOSURE

A CMOS image sensor for improving a characteristic of transmittance therein is provided by forming a convex-shaped color filter pattern that acts as a micro-lens. The CMOS image sensor includes a semiconductor structure having a photodiode and a peripheral circuit, an insulating layer that is formed on the semiconductor structure and that has a trench, and a convex-shaped color filter pattern formed on the insulating layer and covering the trench.